

On a small collection of Reptiles and Batrachians
from German New Guinea and some other herpeto-
logical notes.

By

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With 6 Text-figures.

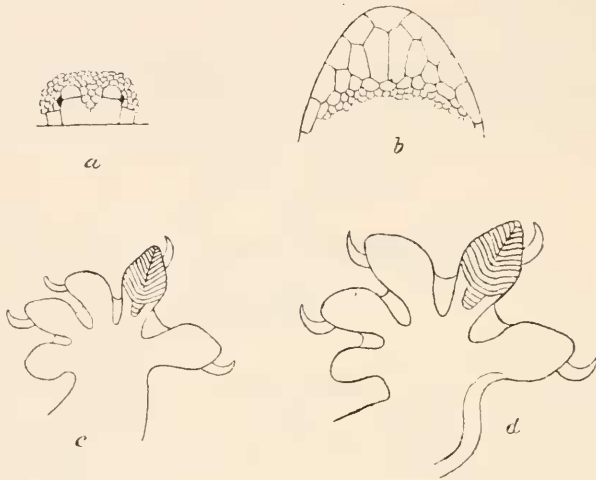
Some time ago I got a small collection of reptiles and batrachians from Bogadjim at Stephansort, German New Guinea, sent to me for determination by the curator of the museum in Wiesbaden, Mr. ED. LAMPE. According to my opinion it contains several specimens of interest, and I give in the following a list of all the species with some notes regarding them. A specimen of the genus *Gehyra* is described as a new species. At the same time I wish to publish some small notes regarding a few other reptiles and batrachians, belonging to some collections from other places, and also obtained from Mr. ED. LAMPE.

The collection from German New Guinea.

***Gehyra lampei* n. sp.**

Head much longer than broad; snout longer than the distance between the eye and the ear-opening, about $1\frac{1}{2}$ the diameter of the orbit; forehead with a median groove; ear-opening small, longitudinally oval. Body and limbs moderately elongate, depressed; a very well developed cutaneous fold at the posterior margin of the hind limbs; a low, feebly marked fold extends from below the ear along the sides of the neck and the fore limb, and another from below the insertion of the fore limbs along the sides of the body to the groin. Digits short and broad, the proximal part rather

narrow, the distal one enlarged to a broad oval disc; a well developed interdigital web, reaching the base of the discoidal part of the fingers and the toes. Inferior lamellæ numerous, transverse and single on the narrow proximal part, sharply angular and partly divided on the broad distal



Gehyra lampei.

a the front of the snout; b the chin; c the under surface of the hand; d the under surface of the foot.

part, the most distal ones being paired. On the discoidal part of the 3^d and 4th fingers there are 11 lamellæ, the six distal ones divided, the next two semidivided, and the three basal ones entire; on the narrow proximal part three or four single lamellæ. On the discoidal part of the 3^d and 4th toes there are 12 or 13 lamellæ, the six or seven distal ones paired, and 4—5 transverse single ones on the narrow proximal portion. The free compressed phalanx slender and long, but not fully equal to the diameter of the eye; the thumb and the inner toe well developed, but without any compressed free phalanx; no claw on the thumb, a very small one on the inner toe. Upper surfaces and throat covered with very small flat granular scales, smallest on the vertebral region and on the hind part of the head; abdominal scales moderate, twice as large as the gular scales. Rostral quadrangular, considerably broader than high, with a broad, angular cleft above. Nostril pierced between the rostral, the first labial and two nasals: besides there is a large supra-

nasal which appears to be separated from the nostril by a narrow rim, protruding from the upper of the two nasals mentioned. The large supranasal is separated from its fellow by several small scales behind the broad rostral cleft, in which three such scales are placed; 12 upper labials gradually decreasing in size behind, the two posterior being very small; 10 lower labials, the three or four posterior minute. Mental moderately large, pentagonal; chin-shields in three pairs, the inner largest and elongate, the outer smallest; chin-shields bordered behind by a row of smaller irregular plates. A long, angular series of oval femoral pores, 32 in all. Tail much depressed, tapering, with a rather sharpish, minutely serrated lateral edge, its upper surface covered with very small flat scales, arranged in transverse rows, its lower surface provided with a median series of large transverse plates.

Greyish brown above with small irregular dark dots, and some rather distinct dark spots along the median line of the tail. Lower surfaces uniform greyish white, more dusky on the tail.

Measurements: Total length 60 + 56 mm.

Distance between the tip of the snout and the hind margin of the ear 16 mm.

Distance between snout and eye 7 mm.

Diameter of eye 4 mm.

Breadth of head 12 mm.

Length of fore limb 16 mm.

Length of hind limb 23 mm.

This species is apparently nearly allied to *Gehyra interstitialis*, described by OUDEMANS in Semon's Forschungsreise, Bd. 7, Lief. 1, p. 134, Jena 1894, which, however, appears to be distinguished from my specimen in the following points: «die Zehen sind durch schwache Hautfalten verbunden; Kehlschuppen nur wenig kleiner als die Bauchschuppen, Nasenloch zwischen Rostrale, dem ersten Labiale und vier Nasalia; neun Labialia am Oberkiefer, sieben am Unterkiefer; Femoralporen im ganzen fünfzig, rund; Farbe oben bleigrau mit vielen runden helleren Flecken». In addition to this there is no transverse row of plates behind the chin-shields in *G. interstitialis*, and the inferior lamellæ of the digits are divided in a higher degree than in my species: «die Lamellen an der Unterseite der Zehen sind geteilt, jedoch nicht immer deutlich».

In Verh. Zool. Bot. Gesellsch., Wien 1901, p. 608 WERNER mentions a *Gehyra* from New Guinea which he regards as *G. interstitialis*, although with much doubt. It differs namely from the last mentioned species in several points, especially in the great development of the interdigital web, as the following quotation from WERNER proves: «Die Finger und Zehen sind bis zur Basis der Erweiterungen durch Spannhäute verbunden, also in einer Ausdehnung wie bei den Eidechsen überhaupt höchstens noch bei *Luperosaurus*». By this characteristic WERNER's and my specimens appear to agree very well which also is the case with regard to some other points, and possibly they ought to be referred to the same species. WERNER's specimen is said to have the inner toe clawless, which difference, however, probably is of no great importance, this claw being very difficult to discern even in my specimen.

As WERNER points out, his specimen appears to be related to *G. marginata* BLGR as well, which is said to be identical with *G. fischeri* STRAUCH. To judge from BOULENGER's description in Cat. Liz. III, p. 486, as well as from that of STRAUCH, in Mem. Acad. Sc. St. Petersburg, Ser. 7, T. 35, p. 29, and from that of OUDEMANS, in Zool. Forsch.-Reise Austr. von Semon, Bd. 5, Lief. 1, p. 134, Jena 1894, my species seems to differ from the last mentioned species in the following points. The interdigital web is larger, the lamellæ under the distal portion of the fingers and toes are divided, the labials are fewer, and the tail is provided with regular, transversely dilated plates below, in addition to which the marginal fold seems to be much less developed.

By the subdigital lamellæ, some of which are divided, some single, this new species appears to be intermediate between *Gehyra interstitialis* and *Gehyra marginata*. All these species are evidently nearly allied to each other, but I do not believe they can be regarded as a single species. According to my opinion such a species should prove to exhibit too large variations for a species of this genus, as may be seen from the following table.

	<i>G. interstitialis</i>	<i>G. lampei</i>	<i>G. marginata</i> (= <i>G. fischeri</i>)
Inferior lamellæ	divided	partly divided, partly entire	entire
Interdigital web	short	large	short
Femoral pores	50—60	32	35
Upper labials	9	12	14—15
Nasals	4	2 (or 3)	4
Supranasals separated by	?	several small scales	a single small plate
Behind the chin- shields	small granular scales	a series of plates	a series of plates
Gular scales	nearly as large as the abdominal scales	about $\frac{1}{2}$ of the abdominal scales	about $\frac{1}{3}$ of the abdominal scales (STRAUCH)
The dermal marginal fold	rather feeble and interrupted	rather feeble and interrupted	very broad and continuous along the margin of the body and limbs
Tail covered below by	?	transverse plates	„flachen, nicht regelmäßigen, poly- gonalen Platten“; rather smalls according to STRAUCH's figure.

I have named this species in honour of the curator of the museum in Wiesbaden, Mr. ED. LAMPE, who always has taken a very great interest in herpetological researches. At the same time I beg to express to him my sincere gratitude for the several valuable collections of batrachians and reptiles which he kindly has put to my disposition at many occasions.

Lepidodactylus lugubris DUM. et BIBR.

1 specimen.

Gecko vittatus HOUTT.

2 specimens.

Gonyocephalus auritus MEYER.

MEYER, Monatsber. Berl. Ac. 1874, p. 130.

PETERS et DORIA, Ann. Mus. Genev. 13, 1878, p. 382.

BLGR., Cat. Liz. I, p. 295.

1 specimen, 70 + 210 mm.

In the short descriptions, quoted, I have not been able to find any distinct differences between this species and *G. geelvinkianus* PETERS et DORIA, also recorded from New Guinea, and it is possible that my specimen might rather be referred to the last mentioned species. The only characteristic which has induced us to name it *G. auritus* is a dark stripe from the margin of the lower eyelid which widens in front of the ear where it disappears, fading into the groundcolour.

Lygosoma minutum MEYER.

1 specimen.

Lygosoma elegantulum PETERS et DORIA.

2 specimens.

Lygosoma fuscum DUM. et BIBR.

1 specimen.

Lygosoma mivarti BLGR. and **Lygosoma mehelyi** WERNER.

BLGR., Cat. Liz. III, p. 292; WERNER, Zool. Anz. 22, p. 371; MEHELY, Termes Fuzetek, 21, 1898, p. 169.

Two specimens, one of each species. They correspond completely with MEHELY's descriptions (loc. cit) which he gave when he considered these two species only as different sexes of *L. mivarti* BLGR. As the specimens in question are, the one a male, the other a female with the differences of the colour-pattern just as stated by MEHELY, I believed to begin with his opinion to be right and regarded both specimens as *L. mivarti*. A closer examination revealed, however, other differences than those of the colour-pattern and they appeared to me to be rather too important to be only sexual ones. By WERNER's paper, quoted above, which I had the opportunity of seeing shortly afterwards it became

clear to me that the discrepancies mentioned not could be due to difference in sex, but rather, as WERNER believes, to constitute a specific distinction. He states that he has found males as well as females displaying both colour varieties. In addition to the difference in pattern, the hind limbs are shorter in *L. mivarti* ("the female") than in *L. mehelyi* ("the male"); in the former they reach hardly the elbow, in the latter they reach fully in front of the shoulder. In *L. mivarti* I counted 35, in *L. mehelyi* 38 lamellæ under the fourth toe. In addition to this the auricular lobules are, as stated by WERNER, rather distinct in *L. mivarti*, but there are no such to be detected in *L. mehelyi*. On the other hand, I am not able to find any difference between the proportions of the length and breadth of the coalesced fronto-interparietal, spoken of by WERNER. In both specimens the 5th upper labial is below the centre of the eye.

Lygosoma mülleri SCHLEG.

BLGR. Cat. Liz. III, p. 338.

This specimen agrees completely with the descriptions of *L. mülleri*, except in having 32 scales round the body in stead of 34, and in the absence of the dark lateral band. With regard to the colour it corresponds in every detail with the figure of *L. pratti* BLGR., P. Z. S. 1903, vol. 2, p. 128, pl. 13, fig. 1. In other points as well it agrees with this one; the only difference is the number of the scales which are arranged in 36 rows in *L. pratti*. From a third species, *L. loricæ* BLGR., Ann. mus. Civ. (2), Vol. 18, p. 698, pl. 7, fig. 1, nearly allied to the last mentioned, it differs only with regard to the præfrontals, being separated in my specimen, narrowly meeting in *L. loricæ*. This single small difference cannot be considered as a specific one, and if *L. mülleri*, *L. pratti* and *L. loricæ* are to be regarded as distinct species, my specimen ought to be named *L. loricæ* BLGR. As, however, all the three species mentioned correspond with each other in such a high degree that I can, without hesitation, refer it to any of them, I do not believe them to be specifically distinguishable. In such a case *L. mülleri* is the oldest name. Several remarks by different authors concerning the variation of *L. mülleri* with regard to the number of the scales, the colour, and the præfrontals speak also for this opinion. For instances, in Termes Fuzetek MEHELY mentions a specimen of *L. mülleri* with 32 scales and the præfrontals meeting in a point, thus with the characteristics of *L. loricæ*, and in

Notes Leyden 18, p. 253 LIDTH DE JEUDE states a specimen of *L. mülleri* with the usual number of scales but with the præfrontals meeting, and the colour very different from the usual one. All the "species" are found in New Guinea which also speaks for their identity.

Lygosoma miotis BLGR.

BLGR., Ann. Nat. hist. (6) 16, p. 29.

1 specimen, $52 + 72$ mm in total length.

As this specimen in several points did not fully agree with the description of the type specimen, I took the liberty of sending it for comparison to Dr. G. A. BOULENGER, and he has kindly answered that he would, for his part, refer it to the species mentioned. It differs in the following points from the type specimen: the suture between the frontonasal and the frontal is rather broad, the frontal is shorter than the frontoparietal and interparietal together, there are 26 scales round the middle of the body, the two median rows but a little broader than the other dorsal scales; the adpressed limbs hardly meet, and the whole under surface is provided with very regular longitudinal dark stripes. 12 on the middle of the belly.

MEHELY (Termes Fuzetek 21, 1898, p. 168) points out the great resemblance between *L. miotis* BLGR. and the rather variable *L. noctua* LESSON, "from which it differs in the fused frontoparietals, a character which may perhaps be only an individual peculiarity." As shown by the specimen now in question, the two species have the same distribution and vary in a similar manner (24 or 26 scales, frontal as long as, or shorter than, frontoparietal and interparietal together, etc.), and I cannot find any other distinct difference between them than that mentioned by MEHELY. Not having at my disposal any good specimens of *L. noctua*, I do not dare to pronounce any decided opinion about this, but I would be inclined to accept the rightness of MEHELY's supposition.

Stegonotus modestus SCHLEG.

BLGR., Cat. Snakes I, p. 366.

1 specimen; $165 + 58$ mm in length; V. 170, A. 1, C. $\frac{90}{50}$.

As stated by many authors, the variations of this snake is very great; in addition to what they have said about this, it ought perhaps to be mentioned that this specimen has only 170 ventral shields, on both sides 9 upper labials, 4th and 5th entering the eye, and $2 + 3$ temporals.

Stegonotus diehli LINDHOLM.

Jahrb. Nass. Ver. Naturk. 58, p. 236, Wiesbaden 1905.

1 specimen, 240 + 70 mm; V. 183, A. 1, C. $\frac{78}{78}$.

This specimen agrees completely with the type specimen, kindly sent to me for comparison by Mr. ED. LAMPE, but it differs in having only one præocular. By this characteristic it approaches *St. guentheri* BLGR., and the small differences which, according to Mr. LINDHOLM, distinguish these two species become thus still more reduced. My specimen differs, however, from *St. guentheri* by shorter loreal, 2 + 2 temporals, 7 upper labials, and light markings on the head which shows the same beautiful pattern as that of the type specimen.

Rana papua LESSON.

BLGR., Cat. Batr. Sal., p. 64.

8 specimens, 92, 50, 48, 47, 19, 19, 18. 18 mm in length between snout and vent.

Cornufer corrugatus A. DUM.

BLGR., Cat. Batr. Sal., p. 110.

4 specimens. 40, 36, 23, 22 mm in length between snout and vent.

Phanerotis fletcheri BLGR.

Proc. Linn. Soc. N. S. Wales (2) 5, 1890, p. 593.

1 specimen.

As far as I know only two species of the genus *Phanerotis* are hitherto described, the one from New South Wales, *Ph. fletcheri* BLGR., the other from New Guinea, *Ph. novæ guineæ* KAMPEN. As this specimen widely differs from the latter, at first I thought that it ought to be described as a new species. A closer examination revealed, however, that it was very nearly allied to the Australian species, and as I have not been able to find any good characteristics by which it could be distinguished from this one, I prefer to refer it to the Australian species which, thus, seems to be widely distributed. It differs from the description of the type specimen in the following points: the tongue is not oval, but triangular, very broad and obtusely rounded behind, the nostril is placed almost at the end of the high snout; the first finger is longer than the second on one foreleg, but on the other both are

equal in length, the tibio-tarsal tubercle of the adpressed hind limb reaches a little beyond the tip of the snout; the sides of the head and the axillary region is light; the tarsus (except the outer margin) and the whole under surface of the foot are brownish black. Also in other points, as well regarding the colour, as regarding the structure of the skin there are small discrepancies but on the whole the correspondance even in this respect is rather close. Measurements: Length between snout and vent 37 mm. From snout to the hind margin of tympanum 14 mm. Breadth of head 14,8 mm. Fore limb 26 mm. Length of femur 18 mm. Length of tibia 21,5 mm. Length of tarsus with 4th toe 27 mm.

Hyla dolichopsis COPE.

BLGR., Cat. Batr. Sal., p. 384.

1 specimen, 68 mm in length between snout and vent. Diameter of tympanum 4,5 mm; diameter of disks of the fore limbs 4 mm.

In the work quoted this species is said to be distinct from the nearly allied *H. infrafrenata* GTHR. in having "disks considerably larger than the tympanum," whereas *H. infrafrenata* is stated to have "disks much smaller than the tympanum;" in other points the two species "agree in every respect, in coloration as well as in structural characters." As the above measurements prove, the disks and the tympanum are in this specimen, as well as in other, examined by me, nearly quite equal, as has been stated by other authors as well. BOETTGER f. i. (*Semon's Forschungsreise* 5, I. p. 111) points out that *Hyla dolichopsis* has: «Haftscheiben bei ♂ genau so gross, beim ♀ nur wenig grösser als das Trommelfell». In *Termes Fuzetek* 21, 1898, p. 176 MEHELY states the same small differences in size between the disks and the tympanum, and he regards all such specimens in which the disks are larger as *H. dolichopsis*, and those in which the tympanum is larger as *H. infrafrenata*. In this manner two specimens, the one with the disks $\frac{1}{4}$ mm larger, the other with the disks $\frac{1}{4}$ mm smaller, than the tympanum, are regarded as different species, although their habitat is the same, and in spite of their agreement in every other respect. Of course, this cannot be right. At least, as far as the New Guinean specimens are concerned, they must be regarded as belonging to one and the same species, and I have named this specimen *Hyla dolichopsis*, although its disks are somewhat smaller than the tympanum and not "considerably larger."

Regarding the specimens of *Hyla infrafrenata* from North Australia I do not know, whether they vary in the same manner, or if they have het disks constantly "much smaller than the tympanum." Possibly, they form a geographical race with small tympanum, but it seems to me that this variation alone cannot be sufficient for distinguishing two different species, the only difference of which should be that the one should have digital disks much smaller, the other the same organs varying from a little smaller to considerably larger, than the tympanum.

Notes on Indian and African lizards and frogs.

***Varanus nebulosus* GRAY.**

BLGR., Cat. Liz. II, p. 311.

Two small specimens obtained from Kravang, Java, (coll. Dr. L. DE VOS) confirms BIBRON'S old statement regarding the occurrence of this lizard in Java, the correctness of which is disputed by GÜNTHER. Rept. British India. Also in the catalogue Brit. Mus., quoted above, it is recorded only from the Indian continent.

***Eremias undata* SMITH forma *inornata* ROUX.**

BLGR., Cat. Liz. III, p. 92. ROUX, Zool. Jahrb. Syst. 25, 1907, p. 427, pl. 15, figs. 1—3.

2 specimens from Berseba, German S. W. Africa (coll. C. Berger) correspond very well with ROUX' description of *E. inornata*, in agreement with which they are uniform above without any bands; the smaller specimen is "graubräunlich" with red tint and with "weissliche Ocellen in einer Linie," whereas the larger is bright brick-red with blue ocelli on the sides; the distance between the loreal shield and the anterior supraocular does not exceed the length of the latter, and the subocular shield is placed between the 5th and 6th or 6th and 7th upper labials. All these characteristics are not in correspondence with the diagnose of *Eremias undata* to which ROUX' species should belong, according to BOULENGER'S statement, Ann. South Afr. mus. Vol. 5, Part. 9, p. 477. If BOULENGER'S opinion should be right, the two forms must be quite distinct varieties. In the larger specimen there are three rows of granules between the supraoculars and the supraciliaries, in the smaller only two, or even one on a short space below the first supraocular.

Mabuia sulcata PETERS.

BLRG., Cat. Liz. III, p. 206.

5 breeding specimens (3 males, 2 females) from Berseba, German S. W. Africa (coll. C. Berger).

As I have not seen any note regarding the breeding garb of this species a statement about this may be of some interest.

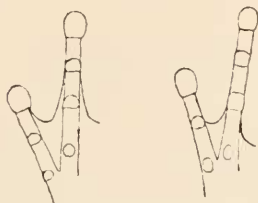
Breeding males (total lengths, 78 + 107, 75 + 108, 74 + . . .): chin and throat to fore limbs jet black, the black colour extending to the ear, along the sides of the head and above the snout, scattered black dots are also found on the upper side of the head, on the breast, and on the sides of belly, limbs and tail; the upper surfaces uniform olive brownish (in one specimen the upper side of the tail is almost black); the margin of the ear and some dots on the supralabials are red. In one of the specimens this colour is not yet fully developed, the black appearing only as large spots on the throat and the chin.

Breeding females (total lengths, 81 + 102, 80 + 122 mm): Chin and throat light red, regularly dotted with black; the red colour extends all over the upper labials backwards to the axil, involving the tympanum, being rather sharply defined from the olive brownish upper parts. Between the red and the brown colours a dark line extends from the snout, along the canthus rostralis, through the eye, above the tympanum, fading behind on the sides of the body. Except throat and chin the whole under surfaces are light, and unspotted as also the upper surfaces which are olive brown.

Hylambates aubryi A. DUM.

In a collection of *Hylambates* specimens from Bibundi, Kamerun (coll. J. Weiler and C. Feldmann) I have received several specimens which fully confirm my opinion that *Hylambates aubryi* A. DUM. and *H. rufus* REICHEN. cannot be regarded as distinct species (Jahrb. Nass. Ver. Naturk., Wiesbaden 1909, p. 103). The two figures below are drawn from two specimens which have been collected at the same place, and which correspond in every little detail, except in the development of the web on the hand and foot. I think that Dr. NIEDEN and other authors which regard the two forms as well distinct species without hesitation would declare the left figure as belonging to a *H. rufus* and the right to a *H. aubryi*.

As mentioned, the specimens are, however, so alike in colour as well as in every other respect that I cannot possibly believe them to be specifically



Fourth and fifth toes of two specimens of **Hylambates aubryi**, showing the different development of the web in this species.

distinguishable. In addition to this they live at the same place, and belong to the same collection in which they represent the most different types. In other specimens from this same collection the differences in the development of the web are less pronounced showing intermediate forms between the two extremities drawn above.
